



Tenalloy HH Spl

C-Mn STEEL (Low Hydrogen)

Welding Electrode for joining High Tensile Steels

| | | | | |
|------------------|----------------|---------------|--------------------------|---|
| CLASSIFICATION : | EN ISO 2560-A | AWS A/SFA 5.1 | IS 814 | APPROVALS : |
| | E 42 3 B 32 H5 | E 7018-1 | E B5629H ₃ JX | MEETS NACE Requirements, ONGC/EIL, Spec GS8 Annexure 1A |

KEY FEATURES :

- Extra low hydrogen iron powder type
- Weld metal resistant to cold and hot cracking and tri-axial stressing
- Medium Penetration
- Excellent toughness down to -46°C
- All position capability

WELDING POSITION :   AC (90 OCV)/ DCEP

TYPICAL APPLICATIONS :

- Carbon and low alloy steel fabrication where severe service condition exist
- Suitable for medium high tensile steels, heavy sections and restrained joints in high tensile steel
- Joining steels of ASTM 106 Gr.B (NACE quality), SA 414/414M Gr.D/E/F/G, SA 515/515M Gr.60/65, SA 516/516M Gr.60/65

REDRYING CONDITION : 300°C for 1 hr. (Also available in vacuum packed condition)

CHEMICAL COMPOSITION OF UNDILUTED WELD METAL, Wt % :

| | C | Mn | Si | S | P |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Typical | 0.06 | 1.1 | 0.3 | 0.01 | 0.01 |
| Specification | 0.04-0.09 | 0.90-1.40 | 0.15-0.50 | 0.012 max | 0.015 max |

MECHANICAL PROPERTIES OF ALL WELD METAL :

| | Condition | UTS, MPa | YS at 0.2% offset, MPa | EL% | CVN Impact , J | |
|---------------|-----------|----------|------------------------|-------|----------------|-------|
| | | | | | -30°C | -46°C |
| Typical | As Welded | 550 | 465 | 26 | 70 | 52 |
| Specification | | 510-580 | 420-520 | 24-30 | 50-100 | 30-60 |

Hardness, 3 Layer: 200 BHN max

Diffusible H₂ Content: <3 ml/100 gm

SPECIAL TESTS : HIC, SSCC, Hot Tensile Test at 200°C

PARAMETERS - PACKING DATA :

| Ø x L, mm | Amperage, A | Approx. Pcs/ Carton | Carton/Box | Approx. wt. of 1000 pcs, Kg. |
|------------|-------------|---------------------|------------|------------------------------|
| 2.5 x 350 | 60-90 | 281 | 4 | 18 |
| 3.15 x 450 | 90-140 | 132 | 4 | 38 |
| 4.0 x 450 | 140-180 | 85 | 4 | 58 |
| 5.0 x 450 | 180-240 | 55 | 4 | 89 |